AMBIO INDEX VOLUME XVIII 1989

Issue No. 1

INTRODUCTION
The Polar Environment: Illusion and Reality
D. E. Sugden 2–5

FRESHWATER
Freshwater Ecosystems of Polar Regions: Vulnerable Resources
J. Hammar 6–22

TERRESTRIAL
Ecology and Conservation of the Polar Regions
C. Young 23–33

ATMOSPHERE
Antarctic Submicron Aerosols and Long-Range Transport of Pollutants
T. Ito 34–41

Atmospheric and Climatic Change in the Arctic and Antarctic
B. Maxwell and L. A. Barrie 42–49

Arctic Haze: Air Pollution in Polar Regions
J. Heintzenberg 50–55

MARINE
Antarctic Cephalopods—A Living Marine Resource?
P. G. Rodhouse 56–59

Life at the Ice Edge
E. Sakshaug and H. R. Skjoldal 60–67

Marine Resource Management for the Antarctic
B. Fernholm and G. Rudbäck 68–70

MANAGEMENT
The Politics of Science in Polar Regions
A. Elzinga and I. Bohlin 71–76

Antarctica: The Challenges That Lie Ahead
L. A. Kimball 77–82

Environmental Assessment in the Antarctic
N. Bonner 83–89

The Barnaby Report Antarctica: The First of Five Nuclear Weapon Free Zones
F. Barnaby 90–91

HISTORICAL VIEW
Early Polar Exploration and Research
M. Baker 91–93

CURRENT VIEW
Entering the Age of the Polar Regions: The Arctic and Antarctic are No Longer Poles Apart
P. J. Beck 92–94

ENVIRONMENTALIST VIEW
A Call for a World Park Antarctica
L. Hagelin 95–96

GLOBAL POLAR RESEARCH
Global Change News 97

Issue No. 2

AQUATIC PLANTS AND POLLUTION CONTROL
The Use of Aquatic Macrophytes in Water-Pollution Control
H. Brix and H.-H. Schierup 100–107

CHERNOBYL AND SWEDISH MOOSE
^{137}Caesium in Northern Swedish Moose: The First Year After the Chernobyl Accident
K. Danell, P. Nelin and G. Wickman 108–111

WATER SHORTAGE IN AFRICA
The Massive Water Scarcity Now Threatening Africa—Why Isn't It Being Addressed?
M. Falkenmark 112–118

GRAZING LANDS IN TUNISIA
Monitoring the Vegetation of Tunisian Grazing Lands Using the Normalized Difference Vegetation Index
P. Kennedy 119–123

CLEANING UP AFTER SALINIZATION
Reclamation of Saline Soils Using Calcium Sulfate Residues from the Titanium Industry
M. Kayasseh and C. Schenck 124–127

DEVELOPMENT IN THE PHILIPPINES
Lake Buhi: Resolving Conflicts in a Philippine Development Project
G. Conway, P. Sajise and W. Knowland 128–135

THE BARNABY REPORT
Changing World Food Prospects; Energy for a Sustainable World; The Uranium Institute's 1988 Symposium
F. Barnaby 136–137

PHOSPHORUS IN SEDIMENTS—CONFERENCE REPORT
Phosphorus in Sediments
M. Enell, S. Fleischer and M. Jansson 137–138

COASTAL MANAGEMENT IN BELIZE
Coastal Resource Management in Belize: Potentials and Problems
A. Katz 139–141

CHARCOAL IN THE AMAZON
The Charcoal of Carajás: A Threat to the Forests of Brazil's Eastern Amazon Region
P. M. Fearnside 141–143

SEAL DEATHS IN EUROPE
Simplification in the Recent Etiology of Seal Deaths
D. Eis 144

SUSTAINABLE DEVELOPMENT—CONFERENCE REPORT
Nature Management and Sustainable Development
B. Ganning and E. Kessler 145–146

Issue No. 3

HISTORICAL VIEW
Scientific Understanding of Ecosystem Acidification: A Historical Review
E. Gorham 150–154

GLOBAL VIEW
Acidification in a Global Perspective
H. Rodhe 155–160

ATMOSPHERE
Atmospheric Acidification: Projections for the Future
J.N. Galloway 161–166

EFFECTS ON FORESTS
Recent Changes in Chemical Climate and Related Effects on Forests in North America and Europe
E.B. Cowling 167–171

TERRESTRIAL ECOSYSTEMS
Some Aspects of Air Pollutant Effects on Terrestrial Ecosystems and Prospects for the Future
G.E. Likens 172–178

SOIL AND PLANTS
Soil Acidification and Its Impact on Ground Vegetation
U. Falkengren-Grerup 179–183

FOREST STUDIES
Comparative and Experimental Approaches to the Study of Acid Deposition Effects on Soils as Substrate for Forest Growth
C.O. Tamm 184–191

MODELS
Mathematical Models and Their Role in Understanding Water Acidification: An Evaluation Using Birkenes Model as an Example
A. Stone and H.M. Seip 192–199

THE BARNABY REPORT
Air Pollution in the UK
F. Barnaby 200–203

SYNOPSIS
Environmental Stress and Security
H. Lundberg 202–203

GLOBAL CHANGE NEWS 205

Issue No. 4

LARGE LAKES
Lake Vättern, Sweden: A 20-Year Perspective
G. Persson, H. Olsson, T. Wiederholm and E. Willén 208–215

HEAVY METALS
Flow and Distribution of Chromium in the Swedish Environment: A New Approach to Studying Environmental Pollution
S. Anderberg, B. Bergbäck and U. Lohm 216–220

WILDERNESS
A Reconnaissance-Level Inventory of the Amount of Wilderness Remaining in the World
J.M. McCloskey and H. Spalding 221–227

ACIDIFICATION HISTORY
Diatom-based pH Reconstruction of Lake Acidification Using Canonical Correspondence Analysis
A.C. Stevenson, H.J.B. Birke, R.J. Flower and R.W. Battarbee 228–233

AQUACULTURE
The Role of Ecosystems for a Sustainable Development of Aquaculture
C. Folke and N. Kautsky 234–243

ENVIRONMENTAL HEALTH
Environmental Health Monitoring System—A Research Programme Based on Biological Indicators
I. Andersson and L. Gustafsson 244–246

DANUBE CONFLICT
Environmental Effects of the Dam System on the Danube at Bös-Nagymaros
K. Perczel and G. Libik 247–249

SO_2 IN POLAND
The Economic Effects of Sulfur Dioxide Pollution in Poland
S. Kabala 250–251

THE BARNABY REPORT
Saving the Ozone Layer
F. Barnaby 252

COMMENT AND REPLY
Restoration of Hornborga Lake, Sweden
T. Larsson 253
S. Björk 253–254

ANNOUNCEMENTS 254

GLOBAL CHANGE NEWS 255

Issue No. 5

MASS SEAL DEATHS, EUROPE
Mass Deaths of Harbor Seals (*Phoca vitulina*), in Europe
R. Dietz, M.-P. Heide-Jørgensen and T. Härkönen 258–264

TOXIC ALGAL BLOOM, NORWAY
Disastrous Bloom of *Chrysochromulina polylepis* (Prymnesiophyceae) in Norwegian Coastal Waters 1988—Mortality in Marine Biota
B. Underdal, O.M. Skulberg, E. Dahl and T. Aune 265–270

INSECTICIDES IN EARTHWORMS
Long-Term Persistence of Dieldrin, DDT, and Heptachlor Epoxide in Earthworms
W.N. Beyer and A.J. Krynitsky 271–273

POLLUTION ABATEMENT CONTROL
The Economic and Employment Effects of Investments in Pollution Abatement and Control Technologies
R.H. Bezdek, M. Wendling and J.D. Jones 274–279

CATCHMENT MONITORING, CZECHOSLOVAKIA
Baseflow Buffering Against Acid Atmospheric Input
J. Cerny 280–283

DROUGHT CONFUSION IN INDIA
Riskful Confusion of Drought and Man-Induced Water Scarcity
J. Bandyopadhyay 284–292

WOODFUEL SITUATION, ZAMBIA
Woodfuel Situation and Deforestation in Zambia
E.S. Kalapula 293–294

SUSTAINABLE WATER USE
Sustainable Use for Water in the 21st Century
W. Smith 294–295

THE BARNABY REPORT
The Release of Radioactivity into the Sea From the Sunken Soviet "MIKE" Submarine
F. Barnaby 296–297

COMMENT
No Simplification in the Etiology of Recent Seal Deaths
A.D.M.E. Osterhaus and E.J. Vedder 297–298

DESILTING LAKE CHILIKA, INDIA
Chilika Lake: Desilting Asia's Largest Brackish Water Lagoon
B. Mangla 298–299

WATER SCARCITY IN INDIA
Water Scarcity Haunts World's Wettest Place
R. Rao 300

PHYSIOLOGICAL INDICATORS, MARINE POLLUTANTS
The Rational Basis for Detection of the Early Effects of Marine Pollutants Using Physiological Indicators
M. Depledge 301–302

ENVIRONMENTAL CONTAMINATION, COSTA RICA
Environmental Contamination in the Gulf of Nicoya, Costa Rica
T. Whelan 302–304

GLOBAL CHANGE NEWS 305

Issue No. 6

EDITORIAL
Global Change, Sustainable Development and the Dangers of Information Overkill
A. Rosemarin 307

CONSERVING BIODIVERSITY
How to Pay for Conserving Biological Diversity
J.M. McNeely 308–313

ACIDIFICATION AND FISH
Lake Acidification in Norway: Present and Predicted Fish Status
A. Henriksen, L. Lien, O. Rosseland, T.S. Traaen and I.S. Sevaldrud 314–321

GLOBAL WARMING EFFECTS
Conservation and Global Warming: A Problem in Biological Adaptation
P.A. Parsons 322–325

BALTIC SEA CHANGES
Man's Impact on the Ecosystem of the Baltic Sea: Energy Flows Today and at the Turn of the Century
R. Elmgren 326–332

CLIMATE CHANGE
Climate Change and International Politics: Problems Facing Developing Countries
P.H. Gleick 333–339

SEA-LEVEL CHANGES
Environmental and Economic Implications of Rising Sea Level and Subsiding Deltas: The Nile and Bengal Examples
J.D. Milliman, J.M. Broadus and F. Gable 340–345

THE BARNABY REPORT
Slow Crawl Towards a Chemical Weapons Treaty
F. Barnaby 346–347

LAND-USE AND FISH KILLS
Agriculture Kills Marine Fish in the 1980s. Who is Responsible for Fish Kills in the Year 2000?
S. Fleischer and L. Stibe 347–350

WATER SCARCITY
Middle East Hydropolitics: Water Scarcity and Conflicts in the Middle East
M. Falkenmark 350–352

Vulnerability Generated by Water Scarcity
M. Falkenmark 352–353

GLOBAL CHANGE NEWS 355

Issue No. 7

EDITORIAL
Nuclear War and the Environment: The Urgent Need for New Policies
A. Rosemarin 357

CONFERENCE STATEMENT
The Environmental Consequences of Nuclear War 358

Confirmation of the Consequences of Nuclear War
P.J. Crutzen 359

POLICY
Policy Implications of Nuclear Winter and Ideas for Solutions
A. Robock 360–366

The Environmental Impact of Nuclear War: Policy Implications
A.B. Pittock 367–371

Policy Implications of Nuclear Winter
R. Turco and C. Sagan 372–376

SMOKE, CLIMATE AND FALLOUT
Atmospheric Smoke Loading from a Nuclear Attack on the United States
R.D. Small 377–383

Some Atmospheric and Climatic Effects of Nuclear War
A.S. Ginzburg 384–390

Synthesis of Global Fallout Hazards in a Nuclear War
R. Turco 391–394

CASE STUDIES
Environmental Impacts on Australia of a Nuclear War
A.B. Pittock 395–401

Nuclear War Impacts on Noncombatant Societies: An Important Research Task
W. Green 402–405

The New Zealand Nuclear Impacts Study
K. Cronin and W. Green 406–410

SYNOPSIS
Nuclear War: A Nonrational Option
R. Pålsson 411

THE BARNABY REPORT
Nuclear Winter and Nuclear Strategies
F. Barnaby 412–413

Issue No. 8

EDITORIAL
Are There Ethical Hazards to Solving Environmental Problems?
E. Kessler 415

ACIDIFICATION MANAGEMENT IN HOLLAND
Acid Rain Policy in The Netherlands—Application of Mediation Techniques
M.W.L. Bovy, M. Mieras, G.H.M.M.J. Posma, P.J.M. Stallen and K. Wieringa 416–422

GREAT LAKES RESTORATION
Use of an Ecosystem Approach to Restore Degraded Areas of the Great Lakes
J.H. Hartig and J.R. Vallentyne 423–428

POLLUTION CONTROL IN INDIA
Recent Developments in Environmental Protection in India: Pollution Control
H. Govind 429–433

SUSTAINABLE DEVELOPMENT—NEPAL/MALAWI
Bottom Up vs. Basic Needs: Integrating Conservation and Development in the Annapurna and Michiru Mountain Conservation Areas of Nepal and Malawi
J.L. Hough and M.N. Sherpa 434–441

SUSTAINABLE AGRICULTURE IN SRI LANKA
Sustainable Agriculture and Nitrogen Supply in Sri Lanka: Farmers' and Scientists' Perspective
O. Palm and K. Sandell 442–448

NUCLEAR WINTER IN BRITAIN
Nuclear Winter: Potential Biospheric Impacts in Britain
N. Myers 449–453

CONSERVATION
Conserving Biological Diversity: Who is Responsible?
A. Schiøtz 454–457

SEA-LEVEL RISE
Sea-Level Rise: Some Implications for Tuvalu
J. Lewis 458–459

THE BARNABY REPORT
World Energy Prospects
F. Barnaby 459–460

DATA NETWORK IN CANADA
Canadians Begin National Ecological Data Network
P.M. Hoose 461

POLLUTION TAXES IN SWEDEN
Sweden Proposes Charges on Emission of Pollutants to Finance Environmentally Sound Technology
E. Kessler 462

GLOBAL CHANGE NEWS
IGBP Identifies Core Projects 465